Claims

What is claimed is:

1. A method for controlling work site dust conditions, the method comprising:

providing a mobile dust control machine configured to treat a dust condition within a work location, the dust control machine being disposed distant from the work location;

monitoring a dust condition of the work location;

generating a dust control signal in response to monitoring the dust condition;

dispatching the mobile dust control machine to the work location in response to the dust control signal; and

operating the mobile dust control machine at the work location.

2. The method of claim 1, further comprising:

providing a mobile dust condition monitor, the mobile dust condition monitor being disposed distant from the work location;

moving the mobile dust condition monitor into a position suitable for monitoring the dust condition of the work location; and

using the mobile dust condition monitor to monitor the dust condition of the work location.

3. The method of claim 1, wherein:

the work location is a first one of a plurality of work locations;

the dust control signal is a first dust control signal; and

the method further comprises:

monitoring the dust condition of a second work location; and

generating a second dust control signal in response to monitoring the dust condition of the second work location.

4. The method of claim 3, further comprising:

communicating the first and second dust control signals to a controller; and

generating a dispatch signal for dispatching the mobile dust control machine to the first work location.

5. The method of claim 3, further comprising:

moving a mobile dust condition monitor from one of the first and second work locations to the other.

6. The method of claim 3, wherein the dust conditions of the first and second work locations are monitored simultaneously.

7. The method of claim 3, further comprising:

comparing the first and second dust control signals; and

dispatching the mobile dust control machine to the first work location in response to the comparison.

8. The method of claim 3, further comprising:

comparing the first and second dust control signals; and

using the comparison to determine a dispatch route for the mobile dust control machine.

9. The method of claim 3, further comprising:

monitoring the position of the mobile dust control machine;

evaluating the positions of the mobile dust control machine, the first work location, and the second work location with respect to each other; and

using the evaluation to determine a dispatch route for the mobile dust control machine.

10. The method of claim 3, wherein:

the mobile dust control machine is the first of a plurality of mobile dust control machines; and

the method further comprises:

providing a second mobile dust control machine;

monitoring the locations of the first and second mobile dust control machines;

evaluating the locations of the first and second mobile dust control machines; and

using the evaluation to determine a dispatch route for the first mobile dust control machine.

11. The method of claim 3, further comprising:

analyzing one or more first dust control signals over a period of time;

analyzing one or more second dust control signals over a period of time; and

dispatching the mobile dust control machine to the first work location in response to the analyses.

12. The method of claim 1, wherein:

the mobile dust control machine is the first of a plurality of mobile dust control machines; and

the method further comprises:

providing a second mobile dust control machine configured to treat a dust condition within the work location, the second mobile dust control machine being disposed distant from the work location;

monitoring the locations of the first and second mobile dust control machines;

comparing the locations of the first and second mobile dust control machines; and

using the comparison to dispatch the first mobile dust control machine to the first work location.

13. The method of claim 1, further comprising:

analyzing one or more dust control signals over a period of time; and

dispatching the mobile dust control machine to the first work location in response to the analysis.

14. The method of claim 1, further comprising:

monitoring the location of the mobile dust control machine; and

dispatching the mobile dust control machine to the work location in response to monitoring the location of the mobile dust control machine.

15. The method of claim 1, further including terminating the operation of the mobile dust control machine at the work location in response to a determination that the work location has been sufficiently treated.

16. The method of claim 15, wherein:

the work location is a first work location; and

the method further comprises:

monitoring a dust condition of a second work location;

generating a second dust control signal in response to monitoring the dust condition of the second work location;

dispatching the mobile dust control machine to the second work location in response to the second dust control signal; and

operating the mobile dust control machine at the second work location.

17. The method of claim 1, further comprising:

monitoring the status of a resource onboard the dust control machine; and

dispatching the mobile dust control machine to a location in response to monitoring the status of the resource.

18. The method of claim 17, wherein the step of dispatching the mobile dust control machine to a location in response to monitoring the status of the resource includes dispatching the mobile dust control machine to a refill or maintenance location.

19. The method of claim 17, wherein the step of dispatching the mobile dust control machine to a location in response to monitoring the status of the resource includes dispatching the mobile dust control machine to the work location.

20. The method of claim 1, wherein:

the mobile dust control machine is a first mobile dust control machine; and

the method further comprises:

monitoring the status of a resource onboard the first mobile dust control machine; and

dispatching a second mobile dust control machine to the work location in response to monitoring the status of a resource onboard the first dust control machine.

21. A dust control system for controlling work site dust conditions, the dust control system comprising:

a dust monitor disposed and arranged to monitor a dust condition of a work location and being operable to produce a dust control signal; and

a mobile dust control machine configured to treat a dust condition within the work location, the dust control machine being movable to the work location from a position distant from the work location in response to the dust control signal.

22. The dust control system of claim 21, wherein:

the mobile dust control machine is a first mobile dust control machine; and

the system further comprises a second mobile dust control machine configured to treat a dust condition within the work location, the second mobile dust control machine being movable to the work location from a position distant from the work location in response to a dust control signal generated by the dust monitor.

23. The dust control system of claim 21, further comprising:

a mobile work machine disposed within the work location;

wherein the dust monitor is attached to the mobile work machine.

24. The dust control system of claim 21, further comprising a controller operable to receive a dust control signal from the dust monitor and being operable to produce a dispatch signal for dispatching the mobile dust control machine to the work location in response to the dust control signal.

25. The dust control system of claim 24, wherein:

the mobile dust control machine is a first mobile dust control machine;

the system further comprises a second mobile dust control machine configured to treat a dust condition within the work location, the second mobile dust control machine being movable to the work location from a position distant from the work location in response to a dust control signal generated by the dust monitor;

the first and second dust control machines include location monitoring equipment operable to determine locations of the first and second dust control machines, the location monitoring equipment being in communication with the controller; and

the controller is operable to receive location information from the location monitoring equipment and to produce the dispatch signal in response to the location information.

26. The dust control system of claim 21, wherein:

the work location is a first work location;

the system comprises a dust monitor disposed and arranged to monitor a dust condition of a second work location and being operable to produce a second dust control signal indicative of a dust condition within the second work location; and

the mobile dust control machine is movable to the second work location from a position distant from the second work location in response to the second dust control signal.

27. The dust control system of claim 26, wherein:

the dust monitor that is disposed and arranged to monitor a dust condition of the first work location is a first dust monitor;

the dust monitor that is disposed and arranged to monitor a dust condition of the second work location is a second dust monitor; and

the system further comprises a controller operable to receive dust control signals from the first and second dust monitors, compare the dust conditions of the first and second work locations, and use the comparison to produce a dispatch signal for dispatching the mobile dust control machine to the first work location.

28. The dust control system of claim 27, wherein the controller is operable to use the comparison to produce one or more dispatch signals for dispatching the mobile dust control machine to the first work location and subsequently to the second work location.

29. The dust control system of claim 27, wherein the controller is operable to communicate a dispatch signal to the mobile dust control machine.

30. The dust control system of claim 27, further including a third dust monitor disposed and arranged to monitor a dust condition of a third work location and being operable to produce a dust control signal;

wherein the controller is operable to receive a dust control signal from the third dust monitor, compare the dust conditions of the first, second, and

third work locations, and use the comparison to determine a dispatch route for the mobile dust control machine.